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AUTHOR Kasworm, Carol E.
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ABSTRACT

Students older than average have usually been defined as adults 25 years of age or older. Research findings note that these students appear to be a different kind of learner than younger students. Older students are more mature, have a well developed analytical-problem-solving capacity, tend to be more motivated, are more goal oriented, spend more time studying, and state they prefer instructor-centered instruction. Because of the special characteristics of these students, modification of present academic programs is needed. Changes in support services are also needed. Supportive service should be oriented toward providing the important linking of the student and the academic program both at pre-entry and during the learning process. (JH)

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STUDENTS OLDER THAN AVERAGE: RESEARCH AND IMPLICATIONS

A paper presented to the

Fifth Annual Conference
on Open Learning and Nontraditional Study

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Dr. Carol E. Kasworm, Ed.D.
Adult & Continuing Education
College of Education
University of Texas at Austin
Austin, Texas 78712

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"The school of the future must make the object of education the subject of his own education. The man submitting to education must become the man educating himself; education of others must become the education of oneself. This fundamental change in the individual's relationship to himself is the most difficult problem facing education for the future decades of scientific and technical revolution" (15:161).

This quotation speaks directly to one of the missions of the practitioner in nontraditional studies. Although we are, in one sense, experts in developing nontraditional programs for older students, we often have gained that knowledge through trial and error. Because we deal with many unknown substances and interactions, we do take calculated risks regarding the appropriateness and relevance of educational experiences. We make assumptions about our clientele group and their learning abilities and interests. In essence, we have attempted to educate ourselves regarding this unique population. Today, this presentation will offer another dimension to this process--research on varied groups of adults in collegiate learning environments. This knowledge, though limited in its scope, will hopefully provide you with another avenue for further education, support your present practices and spark new thoughts for future programmatic efforts.

Mapping the Territory of Students Older Than Average

Students older than average have usually been defined as adults of 25 years of age or older. They have had a break from the compulsory school experience, either through marriage, family, career, armed forces, or unemployment. They are unique in that they have voluntarily sought out collegiate learning experiences and bring to these educational activities a strong goal-orientation and high motivation (28). What are the specific characteristics that make up this mosaic of students older than average?

One major segment of this group presently participates in college and university credit programs. As of 1976, students older than average were 33% of the total college population (30). (Note Table 1.) Older students within the 26 to 29 year old category have represented the greatest growth in numbers. However, the percentage of increase has been more dramatic within the 30 year old and above age groupings. Between 1971-1976 the 25 to 29 year old student group increased by approximately 37%, while both the 30 to 34 year old group and the 35 and over group each increased by approximately 50%.

This collegiate group of students older than average represents a dominant majority in community colleges, with lesser representation in four-year and university programs, respectively (31). They are more likely to be located in urban areas as opposed to rural locations (2). They are predominantly part-time degree seekers (6) (11) (17). Lastly, these students are usually married; most studies report approximately 75% marital representation (11) (17).

Are these students first-timers in the academic collegiate community? In the Hiltunen study (11) approximately 25% of her sample of older freshman students had previous college credit. In my study (17) approximately 65% of the older students, freshmen through senior year, had some previous involvement with college work prior to their current degree-seeking efforts. It is speculated that, of a typical sample of freshmen through senior students, at least 50% of the entering older students would have prior collegiate experiences.

Minimal research has been focused on students enrolled in external degree programs. Of these limited studies (21), the external degree student has been reported to be slightly older with a median age of approximately 36 years. Over half of the external degree students have had prior college experience. In fact, Empire State reports approximately 79% of their student population have transferred prior college credit. Lastly, external degree students are more variable in their intent to gain a degree. Most students at Empire State are degree seeking candidates, while University of Mid-America reports approximately 66% of their students stated a desire to earn a degree.

From a different focal point, two national surveys of adult learners, the Commission on Non-traditional Study and the Johnstone and Riveria studies, offer us much invaluable general information. In 1973, the Commission on Non-traditional Study (2) found that approximately 30 percent of the present American adult population could be classified as learners; i.e., those presently involved in some form of credit or noncredit educational activity. Another 46 percent of the survey population could be called

"would-be learners"; i.e., those who are not currently participating in organized instruction but who expressed an interest in further learning. Of today's adult active learners, approximately 85 percent of this group have at least a high school diploma. The best predictor of adults' participation in present forms of learning is their prior level of educational involvement (16). Through various research studies (2) (16), education participation has been shown to be addictive. The greater positive participation in prior educational activities, the more the learner will participate in future available opportunities. Thus learning for the present adult learner is shaped by the positive reward of prior educational experiences and present relevant learning experiences which are perceived as accessible and beneficial.

The "would-be learners," 46% of this survey sample, represent the potential clientele for immediate future restructuring of present educational formats. However, this group presents some striking contradictions. This would-be learner group is strongly oriented to credit educational activities. Two-thirds of the would-be learner group as opposed to only one-third of the present learner group were interested in credit for their first-choice learning activity. Three times as many would-be learners were interested in skill certification as opposed to learners who were in certificate programs (2:40). However, as strong as their interest in credit activities, the present majority of credit and certificate programs have not been adequate. These individuals have not located attractive, accessible, and viable educational opportunities; they have not found sufficient support, encouragement, motivation or information to pursue

learning activities; or they perhaps have perceived education as a mixed experience--with "costs" of involvement weighted more heavily than "benefits."

Senior citizens have been perceived as an important clientele group for nontraditional collegiate activities. However, research on educational participation of individuals 65 years of age or older shows a strong correlation between education participation and prior educational attainment (16). In general, the greater the individual's age, the less formal education he/she has had. In 1972, persons over 65 had 9.1 median years of school completion (29). This educational attainment level corresponds to their low level involvement (6.5 percent) in educational activities. Of the few nontraditional learning activities in community and senior colleges oriented to older adults, they have tended to attract senior citizens who are the upwardly mobile middle class and who tend to have at least a high school degree (4).

In mapping the territory of students older than average, several recent studies suggest future projections of clientele for nontraditional programs. In a discussion of external degree programs, Houle notes (12) that the most likely candidate to seek out an external degree is the adult who formerly had attended college. These individuals bring motivation and potential ability with a desire that has not been fulfilled. This particular group has been estimated at 11.8 million adults twenty-five years of age and over who had matriculated but had not gone beyond the third year of college (12:51). Secondly, Houle also points to another clientele group, those individuals who have recently completed the GED and wish to proceed into a college degree program. Although this group is small, it is growing

rapidly and represents individuals who have recently tasted the success of gaining an educational credential.

Secondly, the research by Tough regarding self-directed learning is another fruitful area for blending the concept, process, and the clientele into a nontraditional setting. Tough notes that self-directed learners composed approximately 95% of the adult population and represent people from all educational levels, socio-economic strata and varying career orientations (27). In all of these studies, one finding was evident: adults who are self-directed learners want additional help and competence with planning and guiding their learning. Tough states, "hopefully, adult educators will respond by adopting a fresh, broader purpose: to foster the entire range of major learning efforts, not just group instruction and pre-programmed courses" (28:19).

Another growing clientele group for open learning and nontraditional studies are adults in career transition. The College Board study (1) reports that 36 percent of the population between the ages of 16 and 64--more than 40 million Americans--are in career transition status. Of this group approximately 60 percent plan to seek additional education in order to gain credentials for entry into new fields or to gain promotion or advancement in present fields. Because these individuals have present family or career responsibilities, traditional collegiate programs will not be adequate. Nontraditional activities focused upon adult career transition will provide a valuable educational alternative.

In direct relation to these growing numbers of adults facing transition in work, many educational programs are now also looking at

current research in adult life cycle development. Many educators believe that education can provide a valuable approach and strategy for adults in life cycle transition. In her research on students older than average at Goddard College and reviewing other external degree programs, Weatherby (32) notes that learning interests for older students are shaped by the particular life cycle phase or transitions they are presently experiencing or anticipate occurring. Open learning systems are an ideal process for fruitful study of human behavior and for self-directed energies to effectively learn and cope with life cycle changes within the broader education context. Weathersby advocates a programmatic thrust that focuses on these various life stage phases. "Our task is to be sensitive to the learning needs of each transition and respond with programs that have integrity" (32:22).

Older Students as Learners

The second major thrust of research has focused on the role of the student older than average as a learner. Initial research in this area was oriented to the ability to perform in a competitive academic environment. Numerous studies have now substantiated that older students in a variety of undergraduate settings and from a variety of specific subpopulations do perform in a comparable, if not better, manner than younger undergraduates (8) (14) (26). Several researchers have matched ability levels of younger and older students in the interest of investigating a more valid comparison of academic achievement between these two age groupings. Studies by Hull, Hanson and Lenning, and Paraskevopoulos and Robinson (9) (13) (22) report higher grades by older students as compared to a matched sample of younger undergraduates. Because of the relative

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short existence of nontraditional programs and because of their usage of nonquantitative measures for evaluation, no data has been presented regarding the older student's academic performance in nontraditional/open learning programs.

Are there differences between older and younger undergraduates in their intellectual and socio-emotional orientation? Three differing studies present a beginning effort to answer this question.

Kauffman (19) in a study of the Donovan Scholars in the Educare Program found differences between the senior citizen student population and the national norm group of undergraduates on the Omnibus Personality Inventory (OPI). The Donovan Scholar program represents an involvement of adults 65 years of age and over, from varied educational backgrounds (grade school through doctorate) who take credit courses without specifically pursuing academic degrees. Results from this study noted that the Donovan Scholars were more conforming and conservative with considerably more commitments to religious values than were shown by the average college freshman. The scholars also stated less interest in the scientific method and in ambiguous propositions; they preferred structured and logical interpretations. Both groups were very similar in intellectual, esthetic interests and social competence.

Marple (20) in her research on adult women students also reported significant differences in orientations between older continuing education students and students in the freshman class at Wellesley College. On the California Personality Inventory the older women's group displayed greater

self-acceptance, achievement through independent activity behavior, more flexibility and the ability to respond to personal inner needs/motives as opposed to an "other-directedness" orientation. Younger students reported significant behavior in the orientations of responsibility, socialization and good impression. On the Omnibus Personality Inventory, the older women's group displayed greater autonomy, more liberal religious orientation, greater personal integration, less anxiety, and greater concern for responding appropriately on the test. Younger students displayed higher scores in impulse expression and in practical outlook.

In a study of older and younger undergraduates at the University of Georgia (17), there were significant differences in intellectual and socio-emotional orientation. Older students, ages 26 years and above reported sigrificantly higher scores in feelings of self-confidence, well being, minimal fears and few anxieties. They displayed attitudes of emotional and social adjustment. In intellectual pursuits, they noted higher preference for dealing with theoretical problems and concerns and for using logical, analytical and critical problem-solving. These older students also had significantly higher scores on the Response Bias scale, suggesting a sensitivity by these older adults to others' opinions towards themselves and secondly, their desire to perform well for others and themselves. The younger students, by comparison, displayed higher scale scores and thus a higher preference for esthetic stimulation, introspection, sensitivity to environmental stimuli, enjoyment of novel situations and ideas, toleration for ambiguities and uncertainties and preference to deal with complexity, as opposed to simplicity. They also noted their desire to quickly express impulses and to seek immediate

gratification either in conscious thought or overt action. In this particular study, younger and older undergraduate students displayed similar levels of autonomy, religious orientation, practical outlook, thinking introversion, altruism and the level of general activity and commitment to learning and intellectual involvement (See Table 2).

Because of the wide span of ages within the older student group (26-50), a multivariate analysis was also conducted on the scales between the older student groupings, 26-29, 30-39, and 40 years and above. There were significant differences between these three groupings on the scales of Impulse Expression, Personal Integration and Lack of Anxiety Level. On the Impulse Expression scale, the 26 to 29 age group displayed significantly higher scores, with descending score values for the 30 to 39 age group and the 40 and above age group, respectively. The scales of Personal Integration and Lack of Anxiety Level displayed significantly higher scores for the 40 and above age group, with descending score values for the 30 to 39 age group and the 26 to 29 age group, respectively. In examining these results, it can be concluded that the impulse expression is most highly expressed in the younger student years and increasingly diminished by age increments. Personal Integration and Lack of Anxiety Level scales, as noted by the characteristics of confidence, fewer anxious thoughts and less self-deprecation, show increasing gains from the young student years to the oldest student age group of 40 years and above (See Table 3). These findings lend support to the oft stated observations regarding maturity and problem-solving orientation of older learners.

Older undergraduates in this study did report greater maturity and more highly developed analytical problem-solving capacity.

In a study by Roelfs (24) of students 22 years of age and older, Roelfs reported the following differences between these older students and the traditional college-age students from varied junior/community college settings: 1) Older students were less likely to experience academic problems than their college-age counterparts, tended to carry lighter academic loads, and tended to be more motivated; 2) older students appeared to require special encouragement that higher aspirations are realistic; 3) few older students were uncertain about educational goals, where program uncertainty seemed widespread among younger college-age students; 4) older students preferred instructor-centered instruction while college-age students preferred student-centered instruction; 5) college-age students were the most likely to feel unchallenged by their classes while students over 30 were six times as likely as students under 22 to be satisfied with instruction; and 6) older students generally spent more time studying than college-age students.

From the review of current literature, there has been limited research on learner characteristics of older students in external degree programs. In one study Medsker (37) reported that students in nontraditional programs perceive themselves with certain unique traits. On a self-rating scale, they perceived themselves as above average in drive to achieve, independence, persistence, self-motivation, leadership, self-confidence, and academic ability.

These findings note that older adults appear to be a different kind of learner than the younger student. Older students are more mature, have a well-developed analytical problem-solving capacity, tend to be more motivated, are more goal-oriented, spend more time studying, and state they prefer instructor-centered instruction.

Linking Up Older Adults With Education

Effective educational programs serving older students have a strong lateral supportive services component. Supportive services for this older population have several unique distinctions. These supportive services are focused on the entry level characteristics of the younger versus the older student. As noted by the differences between the younger and older student on Table 4 (18), the older student brings the maturity, the independence, and the conflicting time demands into the educational environment. Thus, supportive services should focus on the best approach to link up the student with the education, both pre-entry and also during the learning process. There are six crucial supportive services areas:

Pre-admission/Orientation

In a 1961 survey conducted by the Association of University and Evening Colleges, over 50% of their member institutions reported that no student over twenty-five years of age was allowed in their day academic programs (3). Today, opportunities for access are better. However, the stigma of older adults coming back into an educational environment still remains.

Many institutions inadvertently create barriers to potential adult clientele. As stated by the Commission on Nontraditional Studies (2:56)

adults cannot easily know of institutional interest in older students. Ten percent of this national survey stated that these institutions did not publicize their interest in adults in any way, and another 10 percent merely made literature available to adults on inquiry. Most of the colleges and universities relied on word of mouth as the principal form of advertisement. Only one in five provided special facilitating services for adults.

Although the problem of adequate recruitment and publicity oriented to older adults is serious, an even more significant problem is the "self-rejection," the perceived inability by adults to become involved in educational activities. From the same study by the Commission on Nontraditional Study regarding barriers to educational participation, seventeen percent of the would-be learners were afraid that they were too old to begin their education again; twelve percent had low grades in the past and lacked the confidence in their abilities. Another sixteen percent of this group stated that they had no information about places or people offering potential programs. These data point to the value and need for a recruitment and pre-admission program for students older than average.

This pre-admission program, in combination with an initial orientation program, would provide a valuable foundation and springboard for incoming student population. Issues to be addressed in this program would include:

a) Am I too old for this?

b) How do I get back into good study habits and reading/math/writing skills?

c) Will I be able to compete with younger students on tests?

d) How do I manage my time with family and/or job and/or my community involvements?

e) Is there anyone else like me here in this program? Did they succeed?

f) What are the courses and procedures in this program? What are the internal rules of the game?

g) How can I clarify my career goals?

Several research studies note that older students who are coming into undergraduate programs state a significant value and need for this type of program (7) (10) (11).

Academic Advisement

After initial entry and orientation to the institution, students express need for academic advisement. In two studies comparing younger and older undergraduates, older undergraduates stated specific preference for academic advisement, through the academic department as opposed to a more broadly based counseling program. In the Geisler and Thrush study (7) these returning women students made greater usage of academic department advisors for guidance and counseling than they did of the specialized counseling and guidance services offered on campus. In another study (17), over 80% of the older students used academic advisement services with 42% noting a significant need for the services and another 27% noting a moderate need. This 80% usage of academic advisement services is in comparison to only 12% who reported usage of personal counseling services.

The focus of academic advisement will be different for the older student. Older students have defined goals and strong problem-solving techniques. Academic advisement becomes an orientation of the

older students to the academic student role, the procedures and resources, as opposed to basic academic course advisement. From her study of younger and older undergraduates, Roelfs (24) also noted that academic advisement services become very important for older students with academic difficulties. Older students who do find themselves in academic problems are usually those students who ran out of time and energy preparing for classes and studying for tests. For many of these older students, counseling/academic advisement would involve persuading them to commit more time to college work or to provide time management training for scheduling of their activities.

Skill Development and Remedial Services

Returning adult students do express their concern over inadequate or rusty skills and its subsequent impact upon gaining good grades. Hanson and Lenning (9) point out the significant value of academic skill development services and specifically their design of services to the older student. In one study comparing usage of these services on a traditional college campus (17), older adults reported a 22% usage of tutoring services. Study skills courses and remedial courses were in a traditional course format oriented to the younger student population and therefore were not used or perceived to be valuable to these older students. Particularly with open learning and nontraditional education formats, this supportive service would take on a high priority for entering students in facilitating effective learning.

Career Counseling and Placement Activities

Older students enter educational programs with varying desires and goals regarding its later usage for career and future job activities. However as noted in the College Board Study (1), greater numbers of adults view education as a linking pin between their desire to make a career transition and its eventual reality. Roelfs (24) noted that most older adult students in her survey were certain of their educational and occupational goals. While nearly 66% of students 18-21 were uncertain, only one-sixth of those ages 22-29 and one-tenth of those 30 and older indicated a significant uncertainty regarding their academic program goals. Thus, career counseling for older adults is utilized to define new and variable career goal patterns. Many will be concerned about possible age discrimination and future employability after completion of the education programs. Thus career counseling and placement services should recognize these unique concerns and provide appropriate forms of assistance. In comparing younger and older undergraduate usage of services, one study (7) noted that career/vocational counseling services were used by 17.5 percent of younger students and 18.4 percent of older students; job placement services were used by 20.2 percent of younger students and 22.1 percent of older students. Both of these services represented important program support functions for the older adults.

Financial Aids

Financial aids service is always a critical element in the return of older students into the academic environment. Due to the self-supporting status of most older students, external financial assistance is valued and

often necessary. For example, in both the Geisler and Thrush study (7) and the Erickson study (5), financial assistance was the third most frequently cited need by these older student populations. Preston (23) noted that greater numbers of older students indicated a felt need for financial aid assistance than did the younger student group. And in my study (17), older students reported a greater usage (31.7%) as compared to younger students (25.8%) and significant or moderate need for service of 35% as opposed to 38% as stated by younger students. (At present, there are significant problems with the concept and function of financial aids services. I would suggest that you read the report, Financing Part-Time Students: The New Majority in Post-Secondary Education (6), for suggested modifications in these programs.)

Identity Base

Faced by doubts regarding their return to a collegiate setting and their beliefs that they are the few amongst a younger undergraduate group, older students require some form of "identity base." Older students state a strong desire and need for one designated university official or office which understands their uniqueness and will provide information, referral and guidance (7) (10). Some older student populations have noted a desire for a special organization composed of students older than average or a special meeting place which would provide a gathering spot for students like themselves (11) (25). These expressed desires look at the peer group as an invaluable form of support and assistance. Because of conflicting pressures of home/family/career and because of their perceptions and interactions with the academic community, older students believe that a

specially designated staff member, office, or peer group experience is a valuable asset during their student years.

There have been many other services, including child care facilities, and ombudsman offices, which have been reported in the literature. The services which I have discussed have shown a high consensus of support by researchers, faculty, staff and older student groups. Because students older than average do have special needs, supportive services oriented to this group do provide the important linking of the student and the academic program.

Implications

This presentation has addressed three areas: the characteristics, learner orientation and supportive services research on students older than average. What are the major implications?

Open learning and external degree programs should focus one of their major outreach efforts toward the adult who wishes to re-enter undergraduate credit programs after an interval of years in career or family. Another important target group would be older individuals who are presently in G.E.D., competency based high school diploma, or vocational/technical programs. These two major groupings, both from their current representation and from research regarding adult participation patterns, represent clientele who have the strongest desire and can make the easiest transition to the learning environment of nontraditional programs. If you wish to adapt your entry mechanisms of recruitment and orientation, programmatic thrusts, teaching orientations and supportive services, other potential clientele groupings would include the first-time entry adult into the

academic program, the adult in career or life cycle transition, and the senior citizen. As noted by the literature, each of these special groups will require modifications of present academic programs.

From the limited research regarding learning orientations of older adults, these students are reported to be highly motivated, goal oriented and mature. As learners, they have the analytical, problem-solving capacities and thus will prefer teaching which has a problem-solving orientation. This intellectual orientation also suggests that course focus could be restructured to incorporate more advanced material and would support a more individualized or self-paced form of mediated instruction.

Older students have stated a preference for instructor-centered learning activities. Because of their goal orientation, older students expect a more significant learning experience to occur through an instructor as a knowledge expert. They perceive student-centered instruction as learning within a "vacuum" shaped by the ignorance of the student majority. However, I also believe these findings suggest that older adults have not developed the learner orientation towards self-directed learning pursuits. The Open University of Britain has placed major resources into material and support systems which develop self-directed learning skills and an interactive feedback system between students and the instructor. I would suggest that broader applications of open learning would also require these preliminary skill development orientations and an appropriate feedback mechanism.

In the area of supportive services, open learning and nontraditional programs face unique structural differences from campus-based traditional programs. Extrapolating these supportive service findings to nontraditional situations will present a challenge. The significant concern in this approach to support systems is the awareness that learning is not just establishing an instructional system; it is also providing the "climate for learning." Supportive services represent the vital life net to aid students in reaching their educational goals. Supportive services are an important component for recruitment and retention of students in non-traditional programs.

Students older than average are still an "unknown" group--in some respects, an enigma to those who provide these student services and learning experiences. Research is only beginning to tap the surface concerns. I would hope that you would also take this opportunity to implement research components into your programmatic efforts. As the initial quotation stated, we, who are in education, face the serious problem of educating ourselves. I wish you good luck in this endeavor.

TABLE 1

AGE DISTRIBUTION OF UNDERGRADUATE AND GRADUATE STUDENTS 14 YEARS OLD AND OVER
OCTOBER, 1947 TO OCTOBER, 1976

	1976	1975	1974	1973	1972	1971	1970	1969	1967	1965	1960	1955	1950	1947
	(Numbers in thousands. Civilian noninstitutional population)													
TOTAL	11,139	10,880	9,852	8,966	9,096	8,087	7,413	7,435	6,401	5,675	3,570	2,379	2,175	2,311
14 to 17 years	281	293	309	295	295	284	260	242	239	264	222	147	180	188
18 and 19 years	2,937	2,943	2,597	2,517	2,680	2,726	2,594	2,601	2,286	2,215	1,299	745	733	620
20 and 21 years	2,393	2,313	2,192	2,073	2,116	1,997	1,857	1,945	1,816	1,326	790	931	939	1,088
22 to 24 years	1,846	1,679	1,527	1,465	1,461	1,487	1,354	1,294	998	940	509			
25 to 29 years	1,686	1,616	1,482	1,278	1,229	1,067	939	918	707	614	491	406	324	321
30 to 34 years	803	853	720	551	531	527	410	435	356	316	259	150	(NA)	94
35 years & over	1,189	1,183	1,025	787	783	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
PERCENT DISTRIBUTION														
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
14 to 17 years	2.5	2.7	3.1	3.3	3.2	3.5	3.5	3.3	3.7	4.7	6.3	6.2	8.3	8.1
18 and 19 years	26.4	27.0	26.4	28.0	29.5	33.7	35.0	35.0	35.7	39.0	36.4	31.3	33.7	26.8
20 and 21 years	21.5	21.3	22.3	23.1	23.3	24.7	25.1	26.2	28.4	23.4	22.1	39.1	43.2	47.1
22 to 24 years	16.6	15.4	15.5	16.3	16.1	18.4	18.3	17.4	15.6	16.6	14.3			
25 to 29 years	15.1	14.9	15.0	14.3	13.5	13.2	12.7	12.3	11.0	19.8	13.8	17.1	14.9	13.9
30 to 34 years	7.2	7.8	7.3	6.2	5.8	6.5	5.5	5.9	5.6	5.6	7.3	6.3	(NA)	4.1
35 years & over	10.7	10.9	10.4	8.8	8.6	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)

Note: Compiled from "School Enrollment: Social and Economic Characteristics of Students: October, 1976(Advance Report)," by the U.S. Bureau of Census, Current Population Reports (Series P-20, No. 309), Washington, D.C.: U.S. Government Printing Office, October, 1977, Table 4, p. 7.

NA = Information not available.

TABLE 2

MEAN SCORE AND STANDARD DEVIATION FOR SCALES OF THE OMNIBUS PERSONALITY INVENTORY FOR YOUNGER AND OLDER STUDENTS

Scale	Younger Students (N=120)		Older Students (N=104)	
	Mean	SD	Mean	SD
Thinking Introversion - TI	23.19	7.72	24.75	8.02
Theoretical Orientation - TO	17.65	5.71	19.23	5.99
Estheticism - Es	12.63	4.71	11.02	5.13
Complexity - Co	15.53	5.39	13.94	5.58
Autonomy - Au	26.25	6.21	26.32	6.45
Religious Orientation - RO	12.57	5.43	13.86	6.01
Social Extroversion - SE	21.88	7.04	23.28	7.00
Impulse Expression - IE	30.58	8.66	25.73	9.09
Personal Integration - PI	30.13	11.13	37.06	10.05
Lack of Anxiety Level - Al	12.48	4.42	14.54	4.06
Altruism - AM	20.88	5.09	22.18	5.62
Practical Outlook - PO	14.18	5.50	14.08	5.76
Masculinity/Femininity - MF	26.94	6.11	29.20	5.67
Response Bias - RB	12.83	4.31	14.64	4.51
Intellectual Disposition Category - IDC	5.38	1.47	5.25	1.64

TABLE 3

ANALYSIS OF VARIANCE OF OLDER STUDENTS, AGE GROUPS 26-29 YEARS, 30-39 YEARS AND 40 AND ABOVE YEARS, ON THE OMNIBUS PERSONALITY INVENTORY

Scale	Group Mean Square	Error Mean Square	F[a]
TI	9.187	65.437	.140
TO	29.233	36.119	.809
Es	57.293	2.572	2.228
Co	48.192	30.805	1.564
Au	133.597	39.776	3.359
RO	82.658	35.223	2.347
SE	110.382	47.803	2.309
IE	485.267	74.732	6.493
PI	427.692	94.597	4.521
Al	65.419	15.535	4.211
Am	113.700	30.001	3.790
PO	31.237	33.257	.939
MF	12.016	32.542	.369
RB	69.164	19.421	3.561
IDC	1.374	2.701	.509

Note: To be significant, F must be 6.90 (.01 level) or 3.94 (.05 level).

[a]All F's have been tested at 2 and 102 degrees of freedom.

TABLE 4

ASSUMPTIONS REGARDING DIFFERENTIAL ENTRY CHARACTERISTICS BETWEEN OLDER AND YOUNGER UNDERGRADUATE STUDENTS

Younger Undergraduates	Older Undergraduates
1. Quasi-dependent personality	1. Independent personality
2. Limited emotional/financial support for significant others	2. Major emotional/financial support to significant others
3. Major time focus on academic and related extracurricular activities	3. Competing time focus on job, family, community, personal responsibilities in relation to academic activities
4. High identification with student role	4. Mixed identification with student role
5. Seeking out a self-identity	5. Renewing self-identity
6. Limited awareness of own capabilities	6. Continuing growth of awareness of own capabilities
7. Limited exposure to life/career role models	7. Greater exposure toward life/career role models
8. Minimal self-confidence	8. Developing and diversified self-confidence
9. Introspective perspective	9. Varied self/others perspective
10. Impulse (short-term) orientation	10. Decision (long-term) orientation
11. Limited approaches to learning	11. Varied approaches to learning
12. Passive learner role (Unknown readiness to learn)	12. Active learner role (Active readiness to learn)
13. Limited opportunities for self-directed learning	13. Major opportunities for self-directed learning
14. Minimal analytical/critical problem solving skills	14. Developed analytical/critical problem solving skills
15. High usage of academic skills	15. Limited usage of academic skills
16. Limited prior integrating experiences	16. Varied opportunities for integrating experiences

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